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Summary of Results.

	Current	Approx. Lat.	No of Spots.	Rotation Period. h	m	s
1	Northern spots	From +24° to +33°	{ 1	9	55	32·0
			{ 3	9	55	56·9
2	N. trop. spots	From +11° to +18°	25	9	55	28·0
			(17	9	55	33·9)
			(8	9	55	15·3)
3	"Red spot"	−21°	1	9	55	42·0
4	S. trop. spots	From −18° to −28°	4	9	55	20·7 *
5	S. temp. spots	From −28° to −35°	15	9	55	19·3
6	Southern spots	From −36° to −50°	7	9	55	7·0

* This result must be regarded as somewhat doubtful.

Observations of the Lunar Eclipse, 1899 *December* 16, *at the Liverpool Observatory.* By W. E. Plummer.

The weather conditions at the time of the lunar eclipse were not very favourable for the observation of occultations. During the early part of the eclipse the sky was quite cloudy, the Moon being only occasionally visible through short breaks.

The following observations were made with the 8-inch equatorial and a power of 80. The times noted were thought to be generally satisfactory, but the identification of the stars is by no means certain.

Star.	Phase.	Greenwich Mean Time. h	m	s
B. D. 22° No. 1003	Disapp.	12	57	59·9
,, 22 ,, 1004	,,	13	7	5·7
,, 22 ,, 1006	,,	13	14	53·2
,, 22 ,, 1011	,,	13	20	24·8
,, 22 ,, 993	Reapp.	13	28	47·9
,, 22 ,, 1006	,,	13	48	43·4

The occultation of *Neptune* was looked for, but the planet was lost in the glare of the Moon as it approached the limb.

An attempt was made near the time of maximum eclipse to determine the angular breadth of the unobscured portion, but the observation proved impossible. The attempt seemed to indicate that the portion in the penumbra was greater than was predicted, but the uncertainty of the effects of irradiation and the difficulty of deciding on the termination of the shadow rendered any definite conclusion impossible.

Liverpool Observatory,
1900 *Jan.* 11.

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Note on the Variable Star η Argûs. By Col. E. E. Markwick.

As the recorded observations of the magnitude of this historic variable star appear to have been but few and far between in past time, and as I made a pretty careful determination of it in the years 1883 and 1884, I think it worth while to record it.

The observations were made at Pietermaritzburg, Natal, with a 2¾-inch refractor, eyepiece, power about 28.

1883	Dec. 28	7·5	Two or three steps < D; about = B.
1884	Feb. 5	7·54	Between B and D in brightness.
	Feb. 18	7·6	While observing, a cloud came over, dimming η and the surrounding stars. I thus had a good opportunity of noting the different times of disappearance of the stars. After careful observation I came to the conclusion that it was about = D in brightness.
	June 19	7·46	Between stars A and B in brightness.
	20	7·46	As before.

The comparison stars used were:

	m.	
A = B 3202	7·44	As at p. 256, *Uran. Arg.*
B = B 3204	7·48	
D = G 1332	7·60	

There was little or no variation apparently while the star was under observation, so I think the net result of the above may be taken as

1884·23 7·51

My glass was then only provided with a very rough equatorial stand without circles, but I made certain of the identification of η on 1883 June 20 when I compared its position with that of star D. Using an eyepiece with three threads, one parallel to a circle of declination, and two each inclined 45° to the former, the telescope was adjusted so that D ran along the central thread. Then the times of D passing the centre and of *η Argûs* passing the two threads were noted eight times. A mean of these was taken, and with the corresponding differences in R.A. and Dec. the position of η was ascertained, that of D being taken from the *U. Arg.* The resulting position ($10^h\ 40^m\ 14^s$ R.A. 59° 1′·6 S. Dec.) was such as to ensure and fix at once the correct identification of η, differing as it did from the catalogue position by 1^s only in R.A. and 0′·1 in Dec. This procedure was very necessary, as the variable is surrounded by numbers of stars of about the same degree of brightness, from which by its appearance alone I found it at first impossible to distinguish it.

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